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(57) Abstract:

PURPOSE: To improve the efficiency of a temperature rise in the warm contact portion of a thermocouple pattern with respect to an incident infrared ray power by forming an elastic resin coating layer coated with the thermocouple pattern thereon an insulating substrate.

CONSTITUTION: An elastic resin (usually polyimide resin is used) coating layer 3 is formed on the surface of an insulating substrate 1 on which a thermocouple pattern 2 is formed. The thickness of the elastic resin coating layer 3 is smaller than that of the substrate 1 and usually set to 5 μ m or less. The coating layer 3 has a heat conductivity of the same order as that of the substrate 1. The layer 3 is formed by a spin coating method. The surface of the pattern 2 is processed to be insulated by the layer 3. Thus, the infrared ray absorbing layer 4 of gold black can be formed on a circular region with a radius larger than that of a circle on which a warm contact 20 is arranged approximately by a clearance (k). Thus, heat is applied to the warm contact 20 from the peripheral portion of the absorbing layer 4 directly via the layer 3. This improves the efficiency of a temperature rise in the

pattern 2 coupled with the fact that the thickness of the layer 3 is small.

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